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(12) United States Patent Hirao

(54) SUSPENSION SYSTEM

(71) Applicant: **HITACHI AUTOMOTIVE**

SYSTEMS, LTD., Ibaraki (JP)

(72) Inventor: Ryusuke Hirao, Kamagaya (JP)

(73) Assignee: **HITACHI AUTOMOTIVE**

SYSTEMS, LTD., Ibaraki (JP)

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Primary Examiner — Yonel Beaulieu (74) Attorney, Agent, or Firm — Wenderoth, Lind & Ponack, L.L.P.

(57) ABSTRACT

A suspension system capable of improving maneuverability and stability, the suspension system including a force generation mechanism and a controller. The controller, which controls each of shock absorbers, includes a main control calculation unit, a longitudinal force reaction force calculation unit, a lateral force reaction force calculation unit, an addition unit, and a suspension reaction force consideration unit. The controller subtracts an output from a vertical force calculation unit including the longitudinal force reaction force calculation unit, the lateral force reaction force calculation unit, and the addition unit from an output from the main control calculation unit by the suspension reaction force consideration unit, thereby succeeding in calculating a vertical force applied between a vehicle body and each wheel as a value in consistency with an actual behavior of a vehicle.

10 Claims, 7 Drawing Sheets

